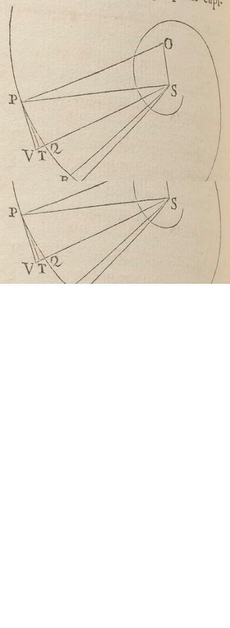
De Motu Corporum

temporibus deſcriberentur, erunt ad invicem ut quadrata temporum in quibus generantur: Eſt itaque decrementum arcus PQ pars quarta decrementi arcus PR. Unde etiam, ſi areæ PSQ æqualis capiatur area QSr, erit decrementum arcus PQ æquale dimidio lineolæ Rr; ideoque vis reſiſtentiæ & vis centripeta ſunt ad invicem ut lineolæ $\frac{1}{4}Rr$ & TQ quas ſimul generant. Quoniam vis centripeta, qua corpus urgetur in P, eſt reciproce ut SP^q, & (per lem. x. lib. 1.) lineola TQ quæ vi illa, ac



lineolæ $\frac{1}{4}Rr$ & TQ quas ſimul generant. Quoniam vis centripeta, qua corpus urgetur in P, eſt reciproce ut SP^q, & (per lem. x.

Liber Secundus.

ad $\frac{1}{4}VQ$ ut OP ad $\frac{1}{4}OS$. Eſt igitur $\frac{OS}{OP \times SP^q}$ ut reſiſtentia, id eſt, in ratione denſitatis medii in P & ratione duplicata velocitatis conjunctim. Auferatur duplicata ratio velocitatis, nempe ratio $\frac{1}{SP^q}$, & manebit medii denſitas in P ut $\frac{OS}{OP \times SP}$. Detur ſpiralis, & ob datam rationem OS ad OP, denſitas medii in P erit ut $\frac{1}{SP}$. In medio igitur cujus denſitas eſt reciproce ut diſtantia a centro SP, corpus gyrari poteſt in hac ſpirali. $Q.E.D.$

manebit medii denſitas in [illegible] ut $\frac{OS}{OP \times SP}$. Detur ſpiralis, & ob datam rationem OS ad OP, denſitas medii in P erit ut $\frac{1}{SP}$. In medio igitur cujus denſitas eſt reciproce ut diſtantia a centro SP, corpus gyrari poteſt in hac ſpirali. $Q.E.D.$